

Dawn Mission Outreach E-News, 10th Edition September 2006

## A MESSAGE FROM LUCY MCFADDEN, DAWN CO-INVESTIGATOR

Two major events happened this summer for the Dawn mission and its team of scientists and engineers. Beginning in August and continuing into September, the scientific instruments were placed onto the spacecraft, powered on, and tested in preparation for shipment to Kennedy Space Center early next year (<a href="http://dawn.jpl.nasa.gov">http://dawn.jpl.nasa.gov</a>). At the same time, an international group of astronomers passed a resolution in Prague, Czech Republic revising the definition of a planet. Our second target, 1 Ceres, is now classified as a dwarf planet. To read more, visit: <a href="http://dawn.jpl.nasa.gov/feature-stories/ceres-dwarf.asp">http://dawn.jpl.nasa.gov/feature-stories/ceres-dwarf.asp</a>

Lucy McFadden
Co-Investigator
Education and Public Outreach (E/PO) Director

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### MEET JOHN BROPHY, DAWN'S ION PROPULSION SYSTEM MANAGER

With interests ranging from snowboarding to ion thrusters, John Brophy recounts how he became a space engineer, his responsibilities at the Jet Propulsion Laboratory, and his current role managing the ion propulsion system aboard the Dawn spacecraft. Learn more about the benefits and mechanics of this innovative propulsion system by reading John's interview at: <a href="http://dawn.jpl.nasa.gov/people/brophy/interview.asp">http://dawn.jpl.nasa.gov/people/brophy/interview.asp</a>

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# **NEWLY RELEASED DAWN FACT SHEET**

How will Dawn contribute to science? Why travel to Vesta and Ceres? What technological advances help make this mission possible? The answers to these questions can be found by downloading the Dawn mission fact sheet at:

http://dawn.jpl.nasa.gov/mission/dawn fact sheet.pdf

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# AN INSIDE PERSPECTIVE OF THE DAWN MISSION

"[With] only about three quarters of a revolution remaining around the Sun before Dawn leaves Earth..." Marc Rayman, Dawn's Project Systems Engineer, reports on the progress of spacecraft preparations and provides an enlightening overview of Dawn's engineering subsystems. For a witty and informative glimpse into the Dawn mission, read Marc's latest journal entries at: http://dawn.jpl.nasa.gov/mission/journal\_09\_06.asp

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# **EXPLORE CAREER CONNECTIONS WITH DAWN**

Expand middle and high school students' awareness of careers in science and engineering with *Career Connections*, a standards-aligned activity developed by the Dawn Education and Public Outreach (E/PO) team. These learning materials challenge students' preconceptions, explore the career pathways of several Dawn team members, and develop skills in writing a resumé. The teacher guide and accompanying student handouts can be downloaded from:

http://dawn.jpl.nasa.gov/people/careers/career\_activity/FINAL/instructor\_guide\_career\_connections.pdf

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STUDENTS CREATE DAWN TV NEWS PROGRAM

Dawn's international partners in Italy have been working with teachers to inspire students to pursue careers in science and engineering. In a two-year project, scientists at the Istituto Nazionale di Astrofisica (INAF) collaborated with select, motivated teachers and their students to create a TV news program about building Dawn's Visible-Infrared Spectrometer (VIR). The program is created and cast by students after visits to the Istituto. Their report is posted at: <a href="http://dawn.jpl.nasa.gov/education/VIR-EPO-06-2006.pdf">http://dawn.jpl.nasa.gov/education/VIR-EPO-06-2006.pdf</a>

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## **DON YOUR OWN ASTEROID BELT**

Make a fashion statement with a fun Dawn mission T-shirt. All you need is a T-shirt and iron-on transfer paper—Dawn Kids provides the design and instructions for creating this unique mission attire at:

http://dawn.jpl.nasa.gov/DawnKids/index.asp

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### LAST CHANCE TO SEND YOUR NAME TO THE ASTEROID BELT

Time is running out! Don't miss the opportunity to virtually travel to the asteroid belt by including your name on a microchip that will accompany Dawn on its journey to Vesta and Ceres. November 4<sup>th</sup> is the last day to climb aboard the Dawn spacecraft. To send your name, simply go to: <a href="http://dawn.jpl.nasa.gov/DawnCommunity/Sendname2asteroid/index">http://dawn.jpl.nasa.gov/DawnCommunity/Sendname2asteroid/index</a> asteroid blt.aspx

NOTE: Once you have entered your name, a certificate will appear. Remember to hit the "Print" button, as this is your only opportunity to print your "name onboard" verification.

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### UPCOMING EDUCATION AND PUBLIC OUTREACH (E/PO) EVENTS

Members of Dawn's Education and Public Outreach team will be sharing mission information and educational materials during Educator's Night at the Denver Museum of Nature and Science on October 3<sup>rd</sup>. For more information, visit:

http://www.dmns.org/main/en/Professionals/School+Groups/Plan+A+Visit/Resources/educatorsNight.htm

On October 11<sup>th</sup>, Dr. Lucy McFadden, Dawn Co-Investigator and E/PO Director, will give a presentation on *Asteroids and Comets* at the Solar System Seminars, a short course offered to students and faculty during the American Astronomical Society's Division for Planetary Sciences annual meeting in Pasadena, California. While there is no fee for participation, pre-registration is requested by September 29<sup>th</sup>. Registrations after this day will be accommodated on a space-available basis. For more information and to pre-register, go to:

http://www.jpl.nasa.gov/informal\_ed/dps/sss.htm

Dawn E/PO member John Ristvey will be conducting a public talk entitled *NASA's Dawn Mission—A Journey in Space and Time* at the Little Thompson Observatory in Berthoud, Colorado on October 20, 2006 at 7:30 PM. Learn about the Dawn mission along with some hands-on activities and enjoy a chance to view the stars.

Also, during the 2006 Colorado Science Conference for Professional Development, the Dawn E/PO team will exhibit and conduct hands-on workshops featuring mission-inspired learning materials. The conference is scheduled for November 17, 2006 at the Denver Merchandise Mart. To learn more and register, go to:

http://www.dmns.org/main/en/Professionals/School+Groups/Plan+A+Visit/Resources/scienceConference.htm

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## ATTENTION: INFORMAL SCIENCE EDUCATORS

Are you interested in participating in a Dawn pilot study? Dawn Education and Public Outreach (E/PO) is committed to offering materials that are of high quality and utility and that reflect the needs of formal and informal science educators. To meet these objectives, the E/PO team will conduct a pilot test of the Web-based *Find a Meteorite* activity during the fall of 2006 and is currently seeking educators in informal settings such as science centers, museums, afterschool programs, and youth groups to test the activity with 8th grade-level children (i.e., ages 12–13). The last chance to sign up is October 4<sup>th</sup>. For more details and to sign up, visit: http://dawn.jpl.nasa.gov/getInvolved/index.asp

To preview the *Find a Meteorite* interactive learning tool, go to: http://dawn.jpl.nasa.gov/Meteorite/index.asp

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#### **ASK A SCIENTIST**

Have a question about the Dawn mission and want to communicate directly with a member of the Dawn mission team? Click on the "Ask a Scientist" link located at the bottom of the Dawn Web site at: http://dawn.jpl.nasa.gov

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#### **TELL US WHAT YOU THINK**

Continually seeking ways to improve the mission Web site, Dawn Education and Public Outreach is eager to receive your feedback. Please share your thoughts by completing a brief survey at: <a href="http://survey.mcrel.org/scripts/qweb.cgi?4CFEF46">http://survey.mcrel.org/scripts/qweb.cgi?4CFEF46</a>

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#### SUBSCRIPTION INFORMATION

Please forward this e-mail to others interested in NASA missions. New subscribers may join the Dawn mission e-news mailing list on our Web site at: http://dawn.ipl.nasa.gov/DawnMedia/e\_news.asp

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Dawn Mission Outreach E-News features information about the mission, its outreach Web site, and products, services, and materials available from the Dawn Education and Public Outreach (E/PO) team. Dawn is the ninth Discovery mission in NASA's Science Mission Directorate and is a collaborative partnership made up of the University of California, Los Angeles, Jet Propulsion Laboratory; Orbital Sciences Corporation; Los Alamos National Laboratory; German Aerospace Center; Max Planck Institute for Solar System Research; Italian Space Agency; and Italian National Institute of Astrophysics. Dawn outreach materials are developed under contract by Midcontinent Research for Education and Learning (McREL), Denver, CO.

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